REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on March 1, 2005, and the references cited therewith. Reconsideration and further examination of this application is hereby requested.

Claims 1, 3-4 and 10-11 are amended, claims 2 and 13 are canceled, and claims 14, and 15 are added; as a result, claims 1, 3-4, 9-12, 14-15 are now pending in this application. No new matter has been added.

Amendment to the Specification

Applicant has amended the specification to include claims 2 and 4 as originally filed. The claims as originally filed included the elements of the sorbent material having a composition including the recited divalent and trivalent metals and oxygen or sulfur. Since the orignalclaims are part of the specification as filed, no new matter is added. Therefore, the Detailed Description of the Invention includes the subject matter of claims 1-4 and 9-13 in such a way as to enable one skilled in the art to which it pertains, or with which it most nearly connected, to make and/pr use the invention.

Double Patenting Rejection

Claims 1, 2, 4, 9, 12, and 13 were rejected under the judicially created doctrine of double patenting over claims 1-4 of U.S. Patent No. 6,830,695. The rejection is traversed. Applicant does not admit obviousness and offers a terminal disclaimer in accordance with rule 321(c) only to advance prosecution. A terminal disclaimer fee under rule 20(d) is filed herewith.

Claims 1-4 and 9-13 were provisionally rejected under the judicially created doctrine of double patenting over claims 1-4 of co-pending Application Serial No. 10/955,292. Applicant does not admit obviousness and offers a terminal disclaimer in compliance with 37 CFR 321(c) only to advance prosecution.

§112 Rejection of the Claims

Claims 1-4 and 9-13 were rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the

invention. Specifically, the Examiner does not find support for the sorbent material having a composition including the recited divalent and trivalent metals and oxygen or sulfur in the specification as filed.

Applicant traverses the Examiners rejection. The Examiner is invited to review original claims 2, 4, and 6 wherein compositions as pertaining to the sorbent material were claimed. Since claims as originally filed are part of the specification as filed and the Applicant clearly conceived of and claimed compositions of sorbent material, the 112 rejection does not apply and the element of composition in claims 1-4 and 9-13 are enabled with respect to compositions. In the interest of advancing prosecution of the application, Applicant has amended the specification to overcome the Examiner's rejection. No new matter has been added.

§102 Rejection of the Claims

Claims 1-4, 9, 12 and 13 were rejected under 35 USC § 102(b) as being anticipated by Sood (U.S. Patent 4,752,397) or O'Neill (U.S. Patent 4,935,146) or Manabe (U.S. Patent 4,458,030). Applicant traverses the Examiner's rejection. Sood, O'Neill and Manabe each disclose hydrotalcites which are carbonates. The stoichiometric formula for hydrotalcites is $A_wB_x(OH)yC_z\text{-}nH_2O$, wherein A is a divalent metal cation, B is a trivalent metal cation and C is a mono to tetravalent anion, and w,x,y,z and n satisfy the following $0 \leq z \leq x \leq 4 \leq w \leq 1/2y$ and $3/2x \leq n \leq 12$. (See O'Neill at column 4, lines 60-67, Sood at column 2, lines 12-14; and Manabe at abstract). In contrast, amended claim 1 recites sorbent materials having the stoichiometric formula of $(AB_2X_4)_n$ wherein A is a divalent metal cation, B is a trivalent metal cation, X is an anion species, and n is at least one.

A comparison of the stoichiometric formula of the sorbent as disclosed in Sood, O'Neill, and Manabe with Applicant's sorbent material clearly indicate that hydrotalcites have a different stoichiometric formula from Applicant's sorbent material. Hydrotalcites are carbonates while Applicant's sorbent material is not. Therefore, hydrotalcites are a different compound than Applicant's sorbent material. The hydrotalcites have characteristics based upon their formula which is described by O'Neill at column 5, lines 23-37. Therefore, claim 1, which includes Applicant's sorbent material comprising the formula $(AB_2X_4)_n$, is patentable over Sood, O'Neill and Manabe because hydrotalcites are not Applicant's sorbent material.

Applicant has amended claim 1 to more clearly describe what Applicant claims as the invention. Claim 1 is patentable over Sood, O'Neill, and Manabe since each element of claim 1 is not taught by Sood, O'Neill or Manabe.

Claims 3, 4, and 9-14 depend from claim 1 and are therefore patentable for at least the same reasons as cited in support of claim 1.

Independent claim 15 is patentable over Sood, O'Neill, and Manabe because neither Sood, nor O'Neill, nor Manabe disclose sorbent material that are spinels. Therefore, claim 14 is patentable.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (505-998-6134) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 13-4213

Respectfully submitted,

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